

Name: _____

at1110paper_practice_test (v36)

1. Solve the equation with factoring by grouping.

$$15x^2 - 6x - 20x + 8 = 0$$

$$(3x - 4)(5x - 2) = 0$$

$$x = \frac{4}{3} \quad x = \frac{2}{5}$$

2. Factor the expression.

$$x^2 - x - 6$$

$$(x - 3)(x + 2)$$

3. Solve the equation.

$$10x^2 + 70x + 16 = 3x^2 + 5x - 2$$

$$7x^2 + 65x + 18 = 0$$

$$(7x + 2)(x + 9) = 0$$

$$x = \frac{-2}{7} \quad x = -9$$

4. Expand the following expression into standard form.

$$(5x + 4)(5x - 4)$$

$$25x^2 - 20x + 20x - 16$$

$$25x^2 - 16$$

5. Expand the following expression into standard form.

$$(6x - 7)(4x + 5)$$

$$\begin{aligned}24x^2 + 30x - 28x - 35 \\24x^2 + 2x - 35\end{aligned}$$

6. Expand the following expression into standard form.

$$(8x - 3)^2$$

$$\begin{aligned}64x^2 - 24x - 24x + 9 \\64x^2 - 48x + 9\end{aligned}$$

7. Factor the expression.

$$49x^2 - 16$$

$$(7x + 4)(7x - 4)$$

8. Solve the equation.

$$(9x - 5)(6x + 7) = 0$$

$$x = \frac{5}{9} \quad x = \frac{-7}{6}$$